

Śmietanka

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **33**
- SRM **44.9**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **44 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **54.2 liter(s)**

Mash information

- Mash efficiency **84 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **36 liter(s)**
- Total mash volume **46.9 liter(s)**

Steps

- Temp **52 C**, Time **15 min**
- Temp **63 C**, Time **20 min**
- Temp **73 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **36 liter(s)** of strike water to **56.8C**
- Add grains
- Keep mash **15 min** at **52C**
- Keep mash **20 min** at **63C**
- Keep mash **30 min** at **73C**
- Keep mash **5 min** at **76C**
- Sparge using **29.1 liter(s)** of **76C** water or to achieve **54.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	2.4 kg (22%)	79 %	16
Grain	Strzegom Pilzneński	4.5 kg (41.3%)	80 %	4
Grain	Strzegom Karmel 300	1.2 kg (11%)	70 %	299
Grain	Strzegom Czekoladowy ciemny	0.4 kg (3.7%)	68 %	1200
Grain	Jęczmień palony	0.4 kg (3.7%)	55 %	1250
Grain	Barwiący	0.8 kg (7.3%)	55 %	985
Grain	Płatki owsiane	1.2 kg (11%)	--- %	---

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	45 g	60 min	12.6 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	20 g	10 min	12.6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	213.2 ml	Safale

Extras

Type	Name	Amount	Use for	Time
Flavor	laktoza	1500 g	Boil	5 min